

# Murmurs

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## HIGHLIGHTS

- NHCS Launches Heart2Heart Fund to Help Needy Patients
- Heart Failure Fellowship: Gearing Up Against A Rising Disease
- NHCS Scores Greatest Improvement in MOH PSS Survey 2009



## Strong Turnout at 1st AsiaPCR-SingLIVE Cardiology Conference

AsiaPCR-SingLIVE drew a strong turnout of 1600 delegates at its inaugural launch on 21 – 23 January 2010 at Suntec Singapore. The East-meets-West partnership showcased the best of heart care practices across three large continents – Europe, US and Asia.

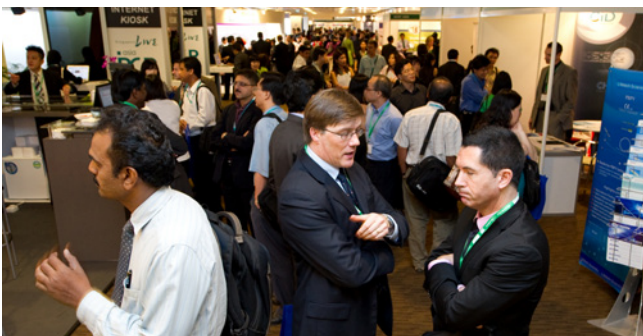
The cardiology conference was jointly organised by renowned interventional meeting, EuroPCR (Paris Course on Revascularisation) and National Heart Centre Singapore (NHCS). EuroPCR is one of two biggest interventional meetings in the world. The Singapore LIVE, on the other hand, plays a pivotal role in advancing cardiac care in Asia since it started in 1989 by NHCS.

Elaborating on the strategic partnership, Professor Jean Marco, Course Director of EuroPCR and AsiaPCR-SingLIVE said, "Both EuroPCR and SingLIVE share similar visions of improving patient care and reducing the burden of cardiovascular disease. SingLIVE, with its established standing and quality as one of the premier cardiovascular interventional events in the Asia-Pacific region, is a natural choice when we are seeking a partner in Asia."



The high-end interventional meeting presented the best from both meetings incorporating choice elements of EuroPCR, such as the popular "Tech News and Trends", "LIVE-in-a-box™" case transmissions and "How Should I Treat?" sessions into the SingLIVE programme, which features practical interactive sessions on new devices and techniques, "Tips and Tricks", and live cases from centres in the region. Besides learning the latest techniques and devices, difficult and unusual case studies, participants also leveraged on the opportunity to expand their network of contacts.

Associate Professor Koh Tian Hai, Medical Director, National Heart Centre Singapore and Course Director of AsiaPCR-SingLIVE added, "Europe has been leading the way in introducing new techniques and devices. The collaboration with EuroPCR will help to bring cutting edge interventional cardiology right to the doorsteps of Asian doctors and paramedical staff, without the need to travel long distances to Europe. As our Asian physicians acquire new skills and introduce novel alternative treatments to patients, it will help to improve the overall standard of cardiovascular care in the region."



## One-stop Care for Pregnant Cardiac Patients

Pregnant cardiac patients used to be seen by their cardiologist and obstetrician in two separate settings, which could be time consuming and an expensive affair.

Recognising this problem, National Heart Centre Singapore (NHCS) and Singapore General Hospital (SGH) jointly started the High Risk Cardiac Pregnancy Clinic in April 2009. The monthly clinic allows the patient to be seen by both her cardiologist and obstetrician in the same setting. Such planned management not only enhances communication but also aims to improve the outcome for the patient.

The High Risk Cardiac Pregnancy Clinic encourages female cardiac patients to proactively discuss family planning issues with the cardiologist prior to getting pregnant. Through active planning, the patients will get a realistic risk assessment and be

advised to adopt the necessary lifestyle modifications to allow for a smooth delivery.

The clinic also conducts pre-pregnancy counselling and contraceptive measures for high risk cardiac patients such as those with Eisenmenger syndrome / Marfan syndrome. This group of patients would not be suitable to get pregnant due to high mortality rate.

Overseas statistics revealed that 0.5 – 1 per cent of all pregnant patients have heart disease. The number is expected to grow as the congenital heart disease patients survived into adulthood with improved corrected surgeries; and as the average age of women getting pregnant rises.

To date, over 20 patients have been seen at the clinic.

## Vickers' House Makes Way for New Heart Centre



From left to right: A/Prof Koh Tian Hai, Prof Tan Ser Kiat, Health Minister Khaw Boon Wan, Dr Tan Kheng Lian and A/Prof Lim Swee Hia with the Vickers' House memorial plaque.

At its last get-together aptly coined "Vickers' Reunion – One More Dance" held on 26 March 2010, Health Minister Khaw Boon Wan, Dr Tan Kheng Lian, Chairman of the Tan Chin Tuan Foundation and Associate Professor Lim Swee Hia, Group Director of Nursing, SingHealth jointly presented a bronze memorial plaque of the Vickers' House to Professor Tan Ser Kiat, Group Chief Executive Officer, SingHealth and Associate Professor Koh Tian Hai, Medical Director, National Heart Centre Singapore. This plaque was erected at Vickers' House at the opening ceremony officiated by Mrs Tan Chin Tuan on 29 July 1953. It will be showcased at the NHCS new building to preserve its heritage.

Established in 1953, Vickers' House was formerly a nurses' hostel.

## New Cardiac Clinic to Improve Waiting Time



To meet the rising patient load, the National Heart Centre Singapore (NHCS) introduced a new clinic, Cardiac Clinic C on level 4 at its Mistri Wing building on 1 February 2010. With this new addition, the centre has a total of 18 consultation rooms to better serve its patients.

The new clinic is complemented with six cardiac labs where patients can look forward to same day cardiac diagnostic investigations such as electrocardiogram (ECG), exercise treadmill test, echocardiography and 24-hour blood pressure monitoring.

NHCS managed over 100,000 outpatients in 2009.

## NHCS Launches Heart2Heart Fund to Help Needy Patients

In Singapore, 1 in 3 deaths is due to cardiovascular disease or stroke. With a rapidly ageing population and increasing sedentary lifestyle and unhealthy eating habits, the incidence of cardiovascular disease is set to rise.

Recognising future healthcare challenges, National Heart Centre Singapore (NHCS) set up the Heart2Heart Fund, a health endowment fund that aims to improve the quality of life of heart patients. Donations will go to the following areas.

### Financial Assistance to Needy Patients

NHCS's Medical Social Services Department sees an increasing number of patients approaching them for financial assistance for their medical needs. Patients may not be eligible for public assistance or Medifund assistance and yet require financial aid to help pay for items such as wheelchair, oxygen ventilators and pumps.

### New Treatment Modalities

With the continual emergence of new medical technology, NHCS strives to bring proven and viable treatment modalities to our patients at an affordable cost.

A case in point is the minimally invasive percutaneous aortic valve replacement for patients with severe aortic stenosis.

### Research and Development

NHCS dedicates resources to finding new cures for cardiovascular disease. One such research area which holds great promise for patients with heart failure involves the use of autologous stem cells taken from suitable patients to repair and repopulate their damaged heart muscles.

### Training and Education

Healthcare is an ever-evolving field and it is critical that the staff are constantly kept abreast of developments to continue delivering high standards of care for the patients.

### New NHCS Building

To meet rising workload, a new NHCS building is underway and targeted to be operational by 2013. With the new building, key clinical services will be housed under one roof in a move towards holistic and seamless care delivery. Coupled with the prolific use of information technology, the new NHCS strives to make the hospital experience, hassle-free for our patients.

*"Previously I had to stop three times to rest when I walked 100 metres to the market as I felt very breathless. After the percutaneous aortic valve replacement procedure, I no longer experience breathlessness or fainting spells. If not for this new treatment, I might not have survived."*



**77-year-old Tang Yat Cheong, beneficiary of the NHCS Heart2Heart Fund.**

## Help Us Improve the Quality of Life of Heart Patients



Your support can come in the form of

- **A one-off or monthly donation**
- **A donation to commemorate a special occasion**  
The donation can be made in memory of a family member, friend or corporation. Physical facilities can be named in the person's / corporation's honour.
- **A bequest**  
You can leave a legacy beyond your lifetime by bequeathing a specific property (real estate) or donating a specific amount or a percentage of your estate.

To donate, please visit [www.nhcs.com.sg](http://www.nhcs.com.sg) to download the donation form.

For enquiries, please contact Ms Yvonne Then, Corporate Development, NHCS at Tel: 6236 7419 or [yvonne.then.c.k@nhcs.com.sg](mailto:yvonne.then.c.k@nhcs.com.sg).

All donations to NHCS Endowment Fund are managed by SingHealth Foundation (UEN No. T02CC1576B).

# Heart Failure Fellowship: Gearing Up Against a Rising Disease

*This issue, the Murmurs team chatted with Dr David Sim, Associate Consultant of the Department of Cardiology at National Heart Centre Singapore (NHCS) to gain insights into his holistic fellowship at The Alfred, Melbourne, Australia from May 2008 – September 2009.*



The Alfred, Australia's major tertiary referral teaching hospital.

## Why The Alfred

Currently, all our heart failure consultants are trained in the United States. Dr Bernard Kwok, our Director of the Heart Failure Programme, NHCS felt that it would be good to introduce a fresh perspective in heart failure management to enhance our care delivery for our patients.



Dr David Sim (1st row, 3rd from left) and his mentor, Dr Peter Bergin (2nd row, 3rd from left) with The Alfred Heart Failure/Transplant Team.

The Alfred is a suitable choice as it is a major tertiary referral teaching hospital. As one of the world's leading healthcare providers, it has a comprehensive heart failure / transplant programme. Its heart centre performs about 30 heart transplants and 10 ventricular assist devices each year and handles all urgent cardiac referrals from three states, Victoria, Tasmania and South Australia.

## The Holistic Training

Heart failure is a rising problem. It is currently the top acute cardiac admissions with approximately 1000 cases seen per year at NHCS and about 5000 cases per year in Singapore.

I was fortunate to have Dr Peter Bergin, Head, Heart Failure / Transplant of The Alfred Heart Centre as my mentor. Each week, I run 4 – 5 clinic sessions, spending about 30 minutes with each patient. Heart failure is a complex condition. We need to spend more time interacting with the patients to ensure their compliance with the disease management. For example, a taxi driver who drives the morning shift would not be able to take his medications in the morning as he would need to visit the loo frequently. To overcome this, we have to tailor his care management.

At The Alfred, heart failure patients enjoy a holistic care management. On Tuesday afternoon and Wednesday morning, when a patient attends the outpatient clinic, he will be reviewed by a multi-disciplinary team including the cardiologist, the nurse clinician, the dietitian, the physiotherapist, the pharmacist and the medical social worker, within the same day.

Over the course of my fellowship, I have performed over 500 cases of right heart studies (Swan-Ganz catheterisations) and cardiac biopsies. Right heart studies are performed to monitor the haemodynamic and as part of the pre-transplant workup. Cardiac biopsies, on the other hand, are done after heart transplantation to watch for signs of rejection and occasionally for diagnosis of underlying aetiology of heart failure.

In my last nine months of training, besides the usual routine, I was also rostered to take care of the cardiac inpatients, supported by a registrar and resident medical officer. This exposure prepped me for the full spectrum of duties involved in the heart failure programme.

## Memorable Moments

I had the privilege to experience the Melbourne Cup, a distinctive Victorian affair. With a rich history dated back to 1861, it is Australia's major Thoroughbred horse race. Each year, on the first Tuesday of November, over 100,000

spectators attend the prestigious event, donned in their finest garb complete with an elegant hat for the ladies and a yellow rose corsage for the gentlemen.

## New Initiatives in the Pipeline

To arrest the rising incidence of heart failure, we adopt a proactive approach to enrol suitable patients into the heart failure programme at an early stage. Currently, the heart failure nurse clinician goes to the wards every morning to review the admissions from the previous day. For those who are diagnosed with heart failure, she will shortlist suitable candidates into the programme based on a pre-determined set of criteria.

Besides applying evidence-based medicine, we need to be mindful of the psychosocial issues such as depression and lack of social support, which are often overlooked. As healthcare professionals, we must assess these issues in these patients, address their specific needs, and intervene appropriately when warranted.

Through an individualised and comprehensive care management, we strive to help patients be the main caregiver, taking full responsibility of their health, to reduce the hospitalisation rate, prolong survival and for a better quality of life.

We also need to work closely with the primary care physicians to establish a shared care model which allows them to manage patients with stable heart failure, leaving the tertiary centre to focus on the more complex cases. Such right site of care will also contribute to keeping healthcare costs affordable.

*Married with two young children, Dr David Sim chose to specialise in heart failure as he recognises the importance of an integrated care management for this group of patients. The compassionate and determined doctor enjoys spending quality time with his family via weekend escapades and annual family vacations.*



Dr David Sim with his family spending Christmas in Melbourne.



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### OUTPATIENT APPOINTMENT UNIT

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Email central.appt@nhcs.com.sg

### GENERAL ENQUIRIES

Tel 6436 7800 Fax 6227 3562

Email nhcs@nhcs.com.sg

## NHCS Heart Failure Programme

### OUTPATIENT SERVICE

- Heart Failure Clinic
- Heart Failure Ancillary Clinic
- Telemonitoring

### INPATIENT SERVICE

- Heart Failure Coordinated Clinical Pathway
- Referral to heart failure cardiologist on call
- Education and counseling to patients / caregivers
- Collaborative care with the heart transplant team

## Our Specialists

### DIRECTOR, HEART FAILURE PROGRAMME AND SENIOR CONSULTANT

Dr Bernard Kwok

### ASSOCIATE CONSULTANT

Dr David Sim

### VISITING CONSULTANTS

Dr Kenneth Ng

Dr Chuang Hsuan Hung

For a comprehensive list of NHCS services and specialists, please visit [www.nhcs.com.sg](http://www.nhcs.com.sg)

## Opening of iPS Lab Spurs Research into Regenerative Medicine

Research at the National Heart Centre Singapore (NHCS) crossed another milestone with the official opening of its induced Pluripotent Stem Cell (iPS) Laboratory on 8 March 2010. The laboratory was set up in 2009 with the support of a grant awarded by the National Research Foundation (NRF) of up to \$10 million for research in autologous cell therapy for the ageing heart.

With this iPS research, NHCS's Research and Development Unit (RDU) moves into high value competitive research involving stem cell technology to generate patient-specific, autologous cardiomyocytes from skin biopsy and hair follicles. This translates to the creation of pluripotent stem cells – cells that are capable of forming other tissues i.e. heart, kidney, liver, neuron. This is especially beneficial for Singapore's rapidly ageing population. Utilising this technology, RDU would be able to do pre-emptive drug screening with patient's cells to avoid unwanted side effects, speeding up the healing process and enhancing

patient safety. The patient-specific cardiomyocytes can be used in cell therapy to repair damaged heart muscle to address the issue of shortage of donor organ in advanced heart failure patients without ethical concern and immune rejection.

This laboratory brings together cardiologists, surgeons, scientists, engineers and technologists to achieve important milestones to address critical issues in regenerative medicine. Through the iterative process from bench to bedside and back to bench, it builds critical infrastructure and human capital for NHCS and promotes medical research excellence initiated by the Ministry of Health.

Successful implementation of the iPS project will cement NHCS's leading role in cardiovascular research and position NHCS as the centre of excellence for translational medicine in the region.

## NHCS Scores Greatest Improvement in MOH Patient Satisfaction Survey 2009

National Heart Centre Singapore (NHCS) achieved its best results in six years in the MOH Patient Satisfaction Survey 2009. Ranked top three among the national specialty centres, NHCS achieved an overall satisfaction rating of 86%, a striking 10.7% improvement from 2008. In addition, 82.4% of the patients surveyed rated the overall experience at NHCS as 'excellent' or 'good'. NHCS also excelled in the service attribute "Willingness to recommend" with a staggering 88% indicating they would 'strongly recommend' or 'likely to recommend'.

### Service Classification

W = World Class, E = Excellence Class, N = Normal Class, P = Poor.

Facilities	<b>N</b>
Care Coordination	<b>E</b>
Knowledge / Skills of doctors	<b>W</b>
Knowledge / Skills of nurses	<b>E</b>
Care / Concern of doctors	<b>W</b>
Care / Concern of nurses	<b>E</b>
Staff explanation is clear	<b>E</b>
Knowledge & Skills of allied health	<b>W</b>
Care & Concern by allied health	<b>W</b>

Commenting on the impressive report card, Associate Professor Koh Tian Hai, Medical Director, National Heart Centre Singapore says, "We are extremely proud that our staff have demonstrated strong service quality traits in their care delivery to the patients. The results of the MOH Patient Satisfaction Survey 2009 have shown that our hard work has not gone unnoticed and Singaporeans do appreciate when a good service is rendered. This certainly serves as a strong booster jab for our continuous journey towards service excellence."

To improve care coordination, the centre has started to supply more than three months drugs upon request to chronic stable patients to reduce the number of patients returning for a repeat prescription since early 2009. It also introduced an express queue for patients with a prescription of three items or less and improvised a one-stop payment system at the Chronic Disease Management Counter at its pharmacy. This has helped to achieve an 11 per cent improvement in the pharmacy waiting time.

## New COO Onboard



National Heart Centre Singapore (NHCS) welcomes its new Chief Operating Officer, Mr Alson Goh who joined the centre on 1 March 2010. Formerly the Director of Speciality & Ambulatory Services and Corporate Planning at KK Women's and Children's Hospital, Alson brings with him 17 years of experience from the healthcare sector, both private and public. His experience spans from engineering, operations and administration to ambulatory services and corporate planning.

## Appointment with the Duke-NUS Graduate Medical School



**DR CHING CHI KEONG**  
Consultant,  
Department of Cardiology as  
Adjunct Assistant Professor



**DR REGINALD LIEW**  
Consultant,  
Department of Cardiology as  
Assistant Professor

## Promotions



**DR SEE CHAI KEAT**  
Consultant,  
Department of Cardiology



**DR SU JANG WEN**  
Consultant, Department  
of Cardiothoracic Surgery



**DR TAN BOON YEW**  
Consultant,  
Department of Cardiology



**DR LOH YEE JIM**  
Associate Consultant,  
Department of  
Cardiothoracic Surgery

## Our Service Champions

Three outstanding staff received the NHCS Service Quality (SQ) Gold Award, the centre's highest accolade for service quality. At the award ceremony on 24 March 2010, the winners, Dr Lim Chong Hee, Senior Consultant and Director, Heart and Lung Transplant, Department of Cardiothoracic Surgery, Senior Staff Nurse Norwati Binte Hussin and Patient Care Assistant Eric Seah each received a trophy and certificate, recognising their dedication to service excellence.



Dr Lim Chong Hee (right) receives a surprise gift of chocolates and a thank you card from Dr Kenny Sin, Head, Department of Cardiothoracic Surgery, NHCS.



Senior Staff Nurse Norwati Binte Hussin and Patient Care Assistant Eric Seah, receive similar appreciation from Ward 44 Senior Nurse Manager, Rosalind Sim.

## Cardiac Disease 101 - What You Always Wanted to Ask About Heart Disease



NHCS cardiologists, Dr Felix Keng and Dr Jack Tan will be hosting the "Meet The Specialists" online forum via the Health Xchange portal in April 2010. Managed by SingHealth, HealthXchange is Singapore's first interactive health and lifestyle resource portal dedicated to providing comprehensive, relevant and trusted health and medical information for Singaporeans and the Asian community.

Visit [www.healthxchange.com.sg](http://www.healthxchange.com.sg) for more information.

## Upcoming Events

### GP Heart Care Symposium 2010 'Sudden Cardiac Death: Risk Assessment and Prevention'

**Date** 22 May 2010 (Saturday)

**Venue** Grand Copthorne Waterfront Hotel

### ACSM CES Workshop 2010

**Date** 23 - 26 July 2010 (Friday - Monday)

**Venue** Suntec Singapore

For registration and event details, please check out [www.nhcs.com.sg](http://www.nhcs.com.sg).

## Join Us on Facebook



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